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        (FILE 'HOME' ENTERED AT 09:54:52 ON 02 MAR 2002)

        FILE 'USPATFULL' ENTERED AT 09:55:02 ON 02 MAR 2002
L1         2171 S LEARN?(3A)MODE#
L2          107 S SECUR?(P)L1
L3      2618491 S AD<=19970925 OR RLD<=19970925
L4           94 S L2 AND L3
L5        39454 S 380/?/NCL OR 709/?/NCL OR 713/?/NCL OR 711/?/NCL OR 717/?/NCL
L6           21 S L4 AND L5
L7         3224 S MONITOR?(8A)(READ? OR WRIT? OR ACCESS?)(8A)(NUMBER OR TIME# O
                  SET HIGH OFF
L8       922838 S SECUR?
                  SET HIGH ON
L9          947 S L8 AND L7
L10         157 S L5 AND L9
L11         114 S L3 AND L10
L12         187 S LEARN?(8A)PROFIL?
L13          60 S L8 AND L12
L14          37 S L13 AND L3

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TI   Secure self learning system
PI   US 6166650   20001226
AI   US 1997-868131   19970603 (8)   <--
RLI   Continuation-in-part of Ser. No. US 1994-313613, filed on **30 Sep
      1994**, now patented, Pat. No. US 5686904
RLI   which is a continuation-in-part of Ser. No. US 1992-985929, filed on
      4 Dec 1992
RLI   which is a continuation-in-part of Ser. No. US 1991-707101, filed on
      29 May 1991, now abandoned
AB   A method and system for the remote control of devices having a
      secure self learn capability. The system includes an encoder and
      a decoder, the encoder encoding variable information including a user
      key using a non-linear algorithm to produce an encoded value transmitted
      to the decoder, the decoder decoding the value using the same algorithm.
      In a **learning mode** a new encoder is to be added to
      the system. The new encoder produces an encoded value using a key
      generation seed. The decoder, upon receiving the encoded key generation
      seed, produces a decoding key based upon the decoded key generation
      seed. The decoding key is stored in the decoder memory allowing valid
      recognition of the new encoder in a **secure** manner.
SUMM In self learning fixed code systems, the incoming code is stored for
      future references by the decoder when it is in a **learning
      mode**. Subsequent transmissions are compared with the learned
      code. Different arrangements to learn new transmitter codes are used. A
      switch can be used to set the decoder either in a normal operation
      mode or in a **learning mode** (U.S. Pat. Nos.
      4,750,118 and 4,912,463). In the **learning mode**, the
      decoder can **learn** new valid codes from a transmitter. Similar
      means are used (refer to U.S. Pat. Nos. 4,931,789 and 5,049,867) to
      program the decoders to react to a new transmitter code. In another
      patent (refer to U.S. Pat. No. 5,148,159), a randomly selected fixed
      code is generated by the decoder and programmed into the associated
      transmitter. U.S. Pat. No. 4,855,713 describes the use of a hand held
      programmer to program the new fixed code to be recognized by the
      decoder. In all of these patents, the transmitted or programmed codes
      are fixed stored codes. **Security** threats by means of code
      grabbing or code generation still exist irrespective of the learning
      mechanisms employed. In addition, for these systems to learn, the user
      has to either (1) use a cumbersome, more expensive, two switch system;
      and/or (2) the user has to set the receiver/decoder in **learning
      mode** via (a) a switch inconveniently physically located on the
      receiver/decoder which can be very difficult (if not impossible for
      elderly or handicapped persons) to activate once the system, e.g., a
      receiver of a garage door opening system, is installed, e.g. on the
      ceiling of a user's garage (See FIG. 1 of U.S. Pat. No. 4,750,118), (b)
      a code sent by the transmitter--activation and use of such can be
      complicated and not **secure** if the transmitter is lost or worse
      stolen, or (c) a code sent by a separate programming means which can be
      complicated to use and likewise not **secure** if the programming
      means is lost or worse stolen.

SUMM In one embodiment of the invention, an encoder learning capability is
      implemented. This allows a user to replace an encoder or add an encoder
      to be recognized by a decoder which has a **learning
      mode** function, selectable by the user. The **learning
      mode** function can be selected by activating it on the decoder.
      This can, be accomplished by using a normal encoder and programming the
      output function to set

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L6     ANSWER 18 OF 21  USPATFULL
TI     Micro-personal digital assistant including a temperature managed CPU
PI     US 5721837              19980224
AI     US 1996-756049         19961015 (8)                        <--
RLI    Continuation of Ser. No. US 1994-365282, filed on 28 Dec 1994,
       now abandoned
RLI    which is a continuation-in-part of Ser. No. US 1993-144231, filed on
       28 Oct 1993
RLI    And a continuation-in-part of Ser. No. US 1994-234344, filed on 28
       Apr 1994, now patented, Pat. No. US 5502838
DETD   FIG. 13 is a plan view of a .mu.PDA 310 with an IR interface 94
       according to an embodiment of the present invention. In this embodiment
       the .mu.PDA may communicate with an array of conventional appliances in
       the home or office for providing remote control. Unique signals for the
       appliances are programmed into the .mu.PDA in a learning
       /receive mode, and filed with user password protection. Once a
       correct password in entered, an icon-based menu is displayed on I/O area
       316 in a user-friendly format. A master routine first queries a user for
       which device to access. For example, in a residential application, icons
       are displayed for such things as overhead garage doors, security
       systems, automatic gates, VCRs, television, and stereos.
NCL    NCLM:  710/303.000
       NCLS:  713/322.000
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